

Responsible Metallurgical Coal Development in Alberta

Presentation to the Coal Policy Consultation Committee

June 16, 2021



Coal Policy Committee – June 16, 2021

Outline

- Coal Policy Consultation
- Executive Summary
- Introduction to Cabin Ridge
- 1976 Coal Policy
 - Backdrop and coal mining in Alberta at the time
 - Key elements and land categories
- Coal mine reclamation since 1976
- Current regulatory and policy framework
- Need for steel-making coal and economic benefits
- Potential paths forward for a modern Coal Policy
- Closing thoughts

Alberta Coal Policy Consultation

Coal Policy Consultation

- Cabin Ridge appreciates this opportunity to express our views
- We support the Coal Policy consultation process and important work of the Committee
- We encourage all interested Albertans to let the Committee know their views
- We believe this process can lead to a modern coal policy that:
 - Balances multiple interests and values
 - Protects the environment
 - Strengthen communities and allow them to benefit in a sustainable way



Executive Summary

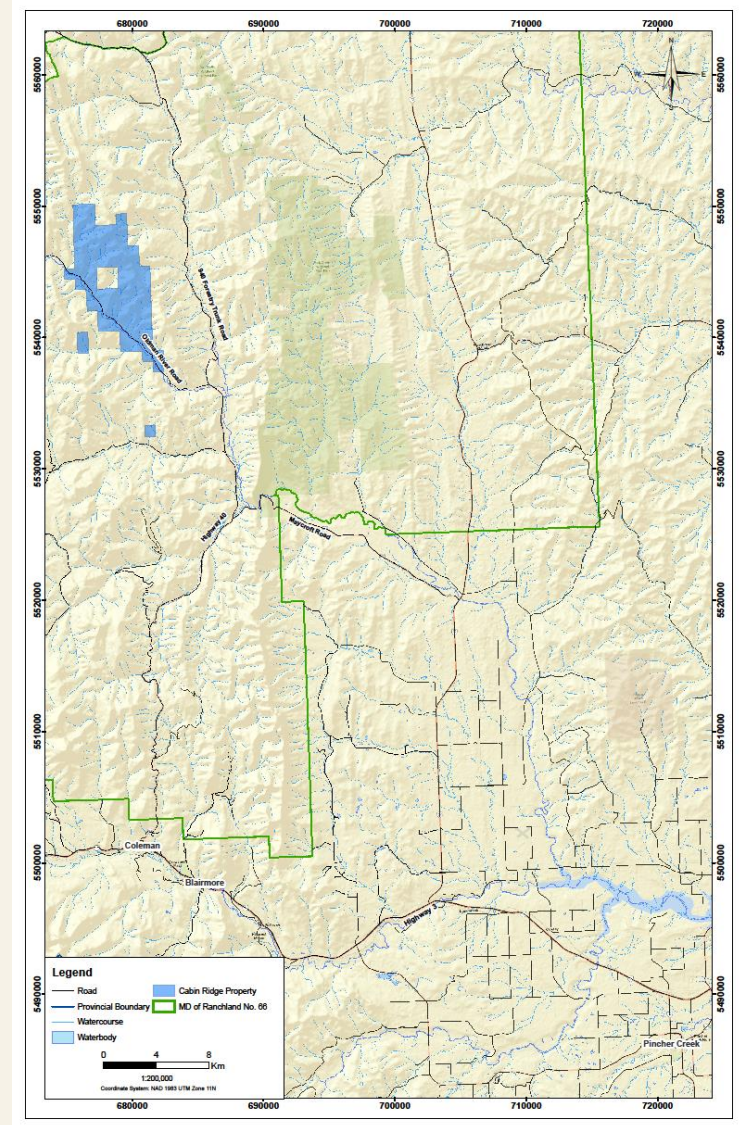
Cabin Ridge to Address and Highlight Several Areas of Interest for the Committee

- The 1976 Coal Policy responded to Alberta's needs at the time but has been superseded by modern, evidence and science-based federal and provincial policy and regulation
- Cabin Ridge supports responsible modern metallurgical coal development that meets and exceeds today's provincial and federal environmental standards
- A modern coal policy can provide opportunity for:
 - Increasing the amount of land protected on the Eastern Slopes
 - Ensuring the most sensitive biodiversity is protected
 - Ensuring water is clean and safe and there is enough for everyone
 - Advancing reconciliation with Indigenous Peoples
 - Alberta, local and regional communities and businesses to benefit economically
 - Articulating and confirming current federal and provincial regulatory mechanisms
 - Acknowledging Alberta and SW Alberta contain a world class steel making coal resource

About Cabin Ridge

The Project

- Privately-owned exploration and development company headquartered in Calgary
- Subsidiary of the Warburton Group, private investment group based in Perth, Australia
- Project Details:
 - On traditional territory of Treaty 7 First Nations
 - Approximately 50 km north of Coleman, Alberta
 - 4678 Ha site consisting of *Freehold Mineral Title*
 - In the exploration phase – drilled 16,000m in 2020
 - Results indicate high quality hard coking coal
 - Conducting Preliminary Economic Assessment (PEA) to determine size and nature of the resource
 - Geological results to date indicate a world-class resource with solid economic potential



Management Team

Experienced Canadian management team and Board

- Cabin Ridge has built a strong, experienced and locally based management team as well as having committed significant investment to exploring the development of its project interests, adopting industry best practices under the stewardship of its experienced board of directors
- Our Senior Management team:



Bradley Johnston

Chief Development Officer



Linda Jefferson

Director, Indigenous, Community and
Government Relations



Patrick Landry

Director, Engineering



Margwyn Zacaruk

Manager, Environmental Affairs

Our Principles

A good neighbour committed to Alberta

We have developed principles that will guide all our activity in the following areas:

Environment

- Climate Change, Air Emissions, Water Stewardship, Waste, Biodiversity, Reclamation and Closure

Social

- Health and Safety, Diversity and Inclusion, Human Rights, Indigenous Peoples, Communities and Stakeholders

Governance

- Business Ethics, Code of Conduct, Compliance and Transparency, Business Resiliency

SOCIAL

Health & Safety
We value the health, safety and well-being of people above all else, including that of our fellow employees, contractors, and surrounding communities. Our goal is to ensure everyone gets home safely, always.

Diversity & Inclusion
We value diversity and treat everyone with respect. We believe in fostering a diverse, inclusive, and safe workplace, free from harassment, bullying and discrimination.

Human Rights
We acknowledge that our activities, and those of our partner businesses, have the potential to impact human rights. We commit to operating with the utmost respect of human rights, including the rights of Indigenous Peoples as set out in the United Nations Declaration on the Rights of Indigenous Peoples.

Indigenous Peoples
We recognize and respect Indigenous rights and the importance of reconciliation with Indigenous communities. We will meaningfully consult Indigenous communities in a respectful, open, and transparent fashion. Indigenous communities should participate in decision-making from our business.

Communities & Stakeholders
We believe in being a good neighbour and treating others with respect. Our communication will always be honest, and transparent as we seek to address concerns and contribute positively to communities and provide opportunities through employment and contracting opportunities.

GOVERNANCE

Business Ethics, Code of Conduct, Compliance & Transparency
We believe in honesty, transparency, and acting with integrity.

CABINRIDGE

PRINCIPLES WE LIVE BY

Strong principles lie at the core of every successful business, community, and relationship. At Cabin Ridge, we understand how important that is. That's why we are committed to stewardship and the responsible exploration and development of steelmaking coal. Our dedication is deeply grounded in clear principles, shaping every decision we make and guiding every action taken throughout a project's lifecycle – from the first exploratory steps to reclamation.

WE ARE GUIDED BY OUR PRINCIPLES – IN EVERYTHING WE DO, NOW AND IN THE FUTURE

ENVIRONMENT

Climate Change
Climate change is a significant issue affecting our planet and communities. We have a role in helping address this global challenge, and are dedicated to managing our GHG emissions and carbon footprint through low emissions technology, energy efficiency, and reclamation.

Air Emissions
We will strive to minimize dust and other emissions to protect the health of the environment and communities near our operations.

Water Stewardship
Access to clean water is a basic human right and critical for maintaining healthy ecosystems. We will protect the watershed where we operate by minimizing water use and ensuring water that leaves our operations is clean and safe for people and aquatic life.

Waste
We will work to minimize impacts from waste generated by our activities, such as safely storing and using waste rock in future reclaimed landscapes. We are committed to reducing, reusing, and recycling our non-mine waste as much as possible.

Biodiversity, Reclamation & Closure
We are committed to preserving and promoting biodiversity, including protecting and avoiding high value areas and habitats. We believe responsible modern mining includes effectively managing biodiversity, reclamation, and closure. We will return lands to a healthy and productive state. We plan for closure at all stages and will progressively reclaim our mine site as we proceed.

CABINRIDGE
Cabin Ridge Project Limited is a privately-owned Alberta Corporation currently exploring steelmaking coal opportunities in Alberta.

2021 Activity Update

Cabin Ridge to incorporate feedback into project design

- In April the Government of Alberta halted all coal exploration Category 2 lands until the coal consultation process is complete:
 - Cabin Ridge's planned exploration program is halted, no drilling, construction or reclamation activities
 - Planned exploration spend was to be in the range of \$12 million, supporting 60-90 full time jobs
- Continuing to engage with Indigenous groups, communities and stakeholders during the suspension
 - On-going direct engagement
 - Will be at the market and community events in Crowsnest Pass and region this spring and summer
- Continuing with limited environmental baseline work
 - Not related to exploration, non-invasive and no permanent footprint
 - Information would be used in designing a permitted potential future mine and any future environmental impact assessment
- Continuing with site safety and security responsibilities

Cabin Ridge Engagement

Our Neighbours

- Treaty 7 First Nations
 - Piikani
 - Kainai
 - Siksika
 - Tsuu'tina
 - Stoney Nakoda
- Métis Nation of Alberta Region 3
- Grazers
- Local and regional municipalities
- Local and regional chambers of commerce
- Crowsnest Pass residents and business owners



Consultation – What We’ve Heard

Cabin Ridge to incorporate feedback into project design

We’re committed to responsible exploration and development of steelmaking coal and are listening to our neighbours

The things we’ve heard that are important

- Water quality, and in particular selenium
- Water allocations from the Oldman River
- Protecting Indigenous rights and importance of reconciliation
- Biodiversity and protection of special species and areas
- Need for certainty in reclamation
- Need for communities and businesses to benefit



Coal Mining in Alberta in 1976

Backdrop to the 1976 Coal Policy

- Rapidly expanding surface coal mines (previously underground) and although fewer mines, increasingly larger
- Government shifting focus to development of oil and gas resources
- Concerns with natural resource development and reclamation in the province
- Reclamation in its infancy, before 1970 reclamation was unknown or of poor quality
 - Great concern and controversy regarding ability of operators to successfully reclaim land and protect wildlife
- Environmental policy and regulation was somewhat new and lacked comprehensive lifecycle management
- Legislation introduced starting in the early 1970s to further regulate coal mining
 - AB Heritage Act | Coal Mines Safety Act | Freehold Mineral Taxation Act | Water Resources Act | Clean Air Act | Clean Water Act | Forest and Prairie Protection Act | Water, Resources Act | Coal Conservation Act | Land Surface Conservation and Reclamation Act | Surface Rights Act
- Indigenous rights not constitutionally protected

1976 Coal Policy

“To bring and maintain the maximum benefits, now and in the future, to the people of Alberta who own this resource”

- Intended to ensure responsible development until regulation was defined
- Key Elements:
 - Exploration and development encouraged in a manner compatible with the environment
 - Development to proceed only if no irreparable harm and with satisfactory reclamation of disturbed lands
 - Exploration and development barred in certain areas, conducted very broadly and to limited extent in other areas
 - Reclamation of plant and animal life must occur
- Environmental Conservation Authority consulted and held hearings on the impact of surface mining in Alberta
 - Water pollution and land reclamation received considerable attention in the hearings

1976 Coal Policy

Guidance by Land Category

1976 Coal Policy and Land Category system would achieve the following:

- Coal mining prohibited in areas incompatible with development (Category 1)
- Coal mining facilitated in areas with existing operations (Category 4)
- Coal mining temporarily restricted or delayed in certain lands pending:
 - Confirmation of reclamation research and development
 - Further land use planning
 - Maturation of Alberta's emerging environmental regulatory framework (would determine if coal mining could or couldn't occur responsibly in those lands (Categories 2 and 3))

Coal Mine Reclamation Since 1976

Land and Wildlife

- Alberta has many examples of leading mine reclamation producing sustainable, productive landscapes
- Several surface mining operations have undergone successful reclamation:
 - Canmore region
 - Coal Valley Mine
 - Luscar (Cheviot) Mine
 - Gregg River Mine
- Reclamation landscapes have successfully attracted:
 - Grizzly bears
 - Bighorn sheep, elk, moose, deer
 - Smaller mammals and bird populations



Pre and Post Mining Landscapes: Coal Valley Mine- Edson AB



Rocky Mountain Sheep – Luscar Mine

Coal Mine Reclamation Since 1976

Aquatic Environment and Selenium

- Considerable research and development on water management to mitigate downstream impacts, in particular, selenium
- Selenium a focus since 1995:
 - Essential metalloid known to be toxic in high concentrations to egg-laying vertebrates (fish, birds). Present in bedrock, can oxidize and leach from mine rock piles
 - Mines use multi-pronged approach of avoidance, source control, water management, mitigation and treatment to manage selenium. Includes modifying mine design and operations, monitoring and formal adaptive management. New mines build selenium management into all aspects of the mining life cycle
- Sphinx Lake is an excellent example of post-closure selenium management and landform design



Sphinx Lake reclaimed End Pit Lake – Alberta. Teck Cardinal River Operations (formerly Luscar Mine).

Current Regulatory and Policy Framework

Coal Mining is Highly Regulated

- Comprehensive and strong provincial and federal environmental legislation and regulatory requirements in place
- Water quality and selenium regulations are clear, defined and enforced
- Public environmental assessment processes
- Land use planning processes in place, including measures for substantial consultation
 - South Saskatchewan Regional Plan
 - Livingstone-Porcupine Hills Sub-regional Integrated Resource Plan
- Indigenous consultation processes in place
- Water allocations regulated (Oldman River Allocation Order, 2003)

Some Applicable Legislation

- Responsible Energy Development Act
- Coal Conservation Act
- Environmental Protection & Enhancement Act
- Public Lands Act
- Alberta Land Stewardship Act
- Water Act
- Fisheries Act
- Species at Risk Act
- Impact Assessment Act
- Canadian Environmental Protection Act
- Constitution Act
- Canadian Net Zero Emissions Accountability Act

Scarce Resource – Steelmaking Coal

Made in Alberta, but meeting global demand

Because of its high quality and unique properties, steel-making coal is a scarce resource in the world. With its high quality, Alberta coal has the potential to displace poorer quality and higher polluting steel making coals. It will be in high demand.



Economic Benefits and Need - Global

Global demand on the rise

- Global demand for steel, and the coal needed to make it, is growing to support strong and emerging economies. By 2050, global steel use is expected to increase by 20% to meet the needs of our growing population
- Steel, iron ore and steelmaking coal are essential for a net zero emission economy. Steelmaking coal produced in Alberta will have an incremental benefit to global climate change objectives.
- Steel is strong, durable, and essential for buildings and infrastructure, vehicles, appliances, and metal products
- Approximately 770 kilograms of steelmaking coal is required to produce one tonne of steel. That translates to:



PERSONAL RECREATION

Approx. **1.1 kilograms** of steelmaking coal is needed to build an average bicycle frame.



TRANSPORTATION

On average, **700 kg** of steel is used per vehicle.



ALTERNATIVE ENERGY

107 tonnes of steel coal is required to make the average wind turbine.

Economic Benefits - Local

Producing steelmaking coal and opportunities

We are committed to ensuring employment and business opportunities for Indigenous groups and all Albertans. Should we move forward with a mine development, benefits to the region would be:

- Hundreds of direct and indirect employment opportunities
- Some of the highest industrial wages in Canada (\$123K annual average)
- Contracts available for local and Indigenous Peoples, businesses and suppliers
- Local, regional and corporate taxes
- Substantial investment in community and environmental initiatives
- Skills and training advancement
- Regional investment in infrastructure
- Enabling legacy remediation to be addressed



Modern Coal Policy - Potential Paths Forward

Collaborate on environmental and economic goals

A modern coal policy can respect values, balance multiple interests, protect the environment and provide economic benefits to local communities and all Albertans

Increase protected lands

- Honour objectives of the 1976 Coal Policy and Albertans' desire to protect the Eastern Slopes
- Achieve a net increase in protected areas
- Redefine the 1976 land categories by moving lands without possibility of steel-making coal development into protected areas

Ensure water is safe for people and animals

- Water quality management requirements thoroughly applied and monitored, proposed water quality management plans assessed and evaluated
- Ensure all water released to the environment meets quality standards
- Ensure transparency and collaboration
- Create multi-stakeholder water monitoring program that includes Indigenous Peoples, communities and grazers

Modern Coal Policy - Potential Paths Forward Continued

Collaborate on environmental and economic goals

Ensure enough water for all users

- Maintaining adequate water supply for all users is important
- Employ technologies and mining practices to reduce water consumption
- Support a collaborative, multi-stakeholder process to review current demands and water allocations and make recommendations to the Minister

Protect Biodiversity, special species and areas

- Ensure same or better biodiversity as 1976 Coal Policy
- Opportunities for investing/creating new protected areas through partnerships and offsets
- Mine planning and rigorous regulatory oversight to eliminate or reduce effects on wildlife and biodiversity
- Continued collaborative efforts for protection of species at risk and recovery plans

Modern Coal Policy - Potential Paths Forward Continued

Collaborate on environmental and economic goals

Respect Indigenous rights and advance reconciliation

- Opportunity for Indigenous communities to be partners in mine development
- Meaningful consultation in project design, environmental management and monitoring
- Indigenous employment, business opportunities and commitments set out in agreements
- Support Crown-led accommodation discussions as required, including through an accommodation table

Define reclamation requirements and hold companies accountable

- Collaborative, multi-stakeholder approach to reclamation planning, land-form definition and long-term monitoring and regulatory oversight
- Provide further definition around reclamation obligations including bonding requirements and holding companies accountable until reclamation certificates issued
- Opportunity for contributions to remediating other existing areas

Modern Coal Policy - Potential Paths Forward Continued

Collaborate on environmental and economic goals

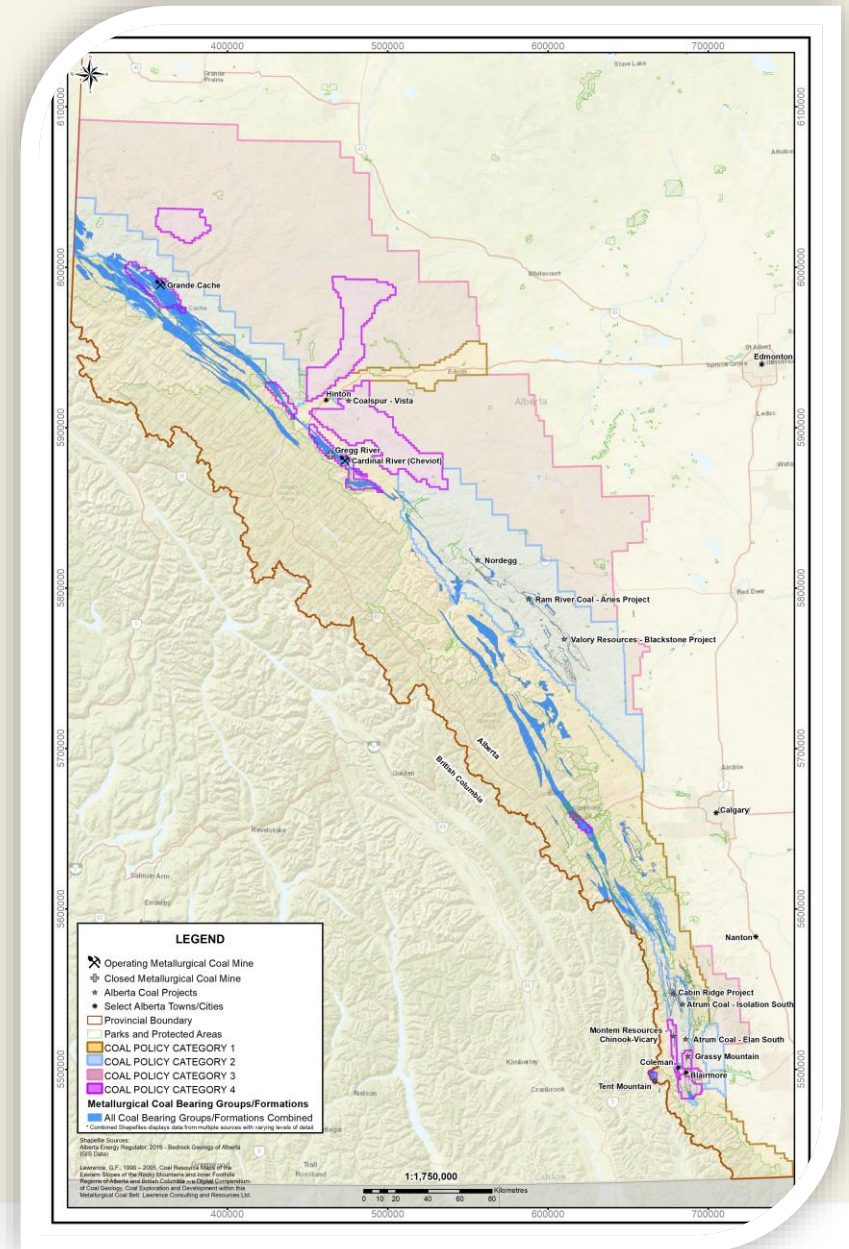
Ensure Albertans, communities and businesses benefit

- Economic contribution that enable communities to be sustainable and diverse
- Ensure potential socio-economic effects and benefits are balanced and assessed
- Ensure community input into project design and mitigations
- Potential for regional investment programs

Further Protection of the Eastern Slopes

Embrace protection and development

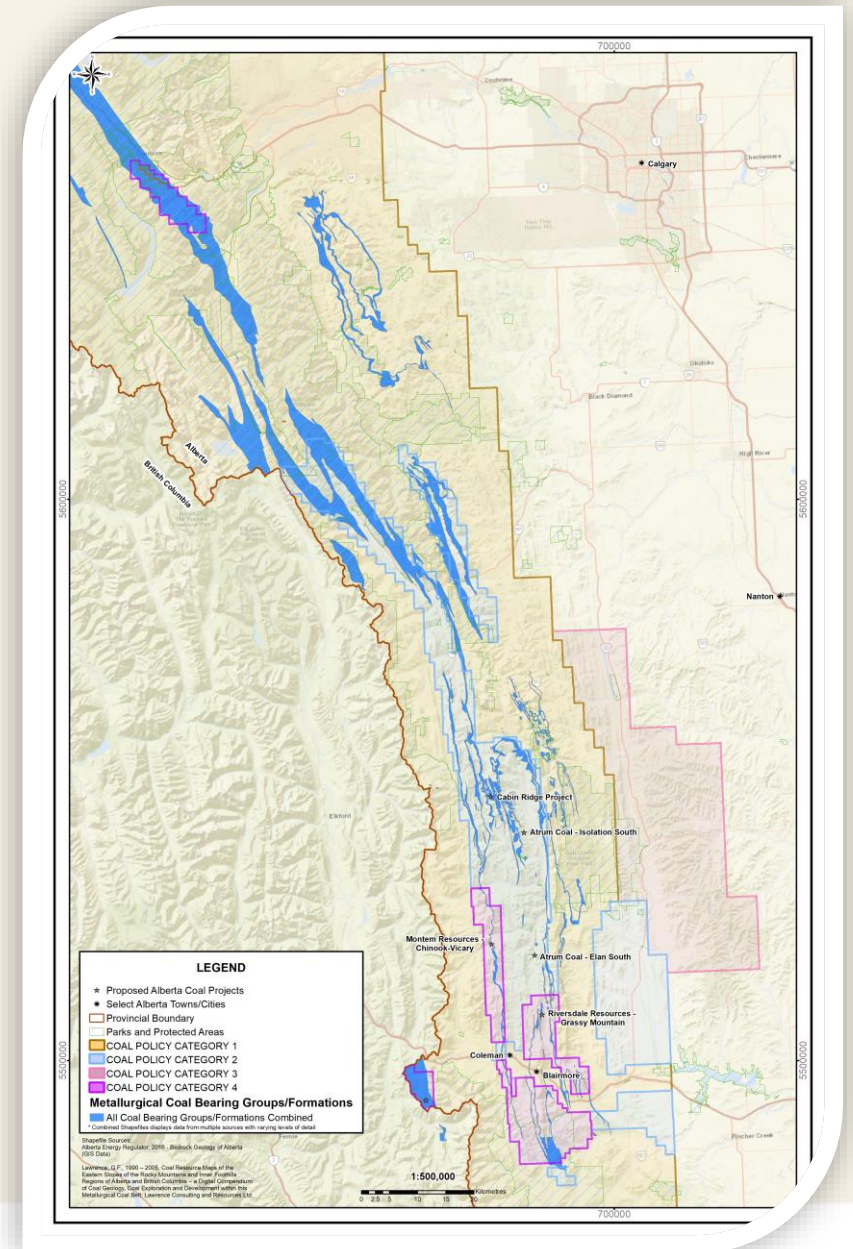
- Coal categories encompass about 94,700 square kms of land
- Of this, about 45% of the land is already protected and won't be developed (43,000 square kms), mostly Category 1 land
- Only 3% of the total area of coal category lands have potential for metallurgical coal development (3,065 square km out of 94,700 square km), most of this is on Category 2 land
- No metallurgical coal resource expected on Category 3 land. Category 3 is 32,500 square kms or ~33% of the total area of the category lands. Thermal coal resources may exist but are likely non-priority given transition away from coal-generated electricity
- Shift Category 3 and other lands which have no steel-making coal development potential into new areas protected from coal development
- **Potential to increase protected/restricted area from 45% to 97% of existing coal categories – adding more than 49,000 square km's to Alberta's protected lands**



Further Protection of the Eastern Slopes Continued

Embrace protection and development

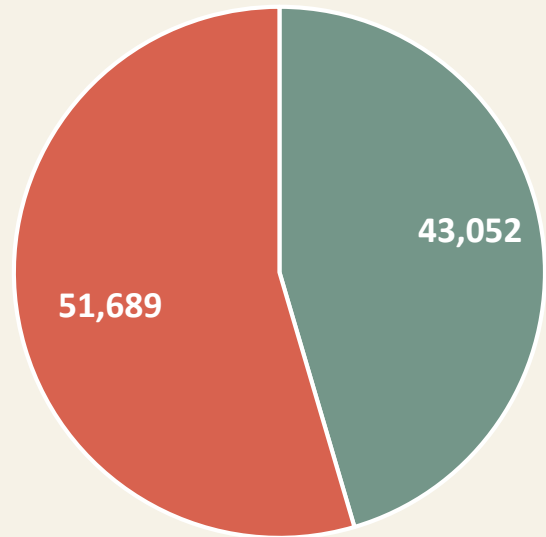
- Map showing close up of southwest Alberta



Outcome - Current & Proposed Land Category System

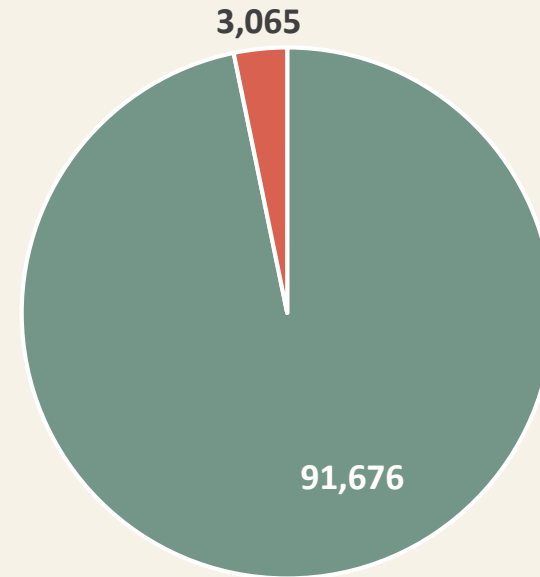
Achieve a net increase in land excluded and restricted from coal development on Eastern Slopes

Current 1976 Coal Policy



■ Total - Protected ■ Total - Integrated

Proposed 2022 Coal Policy



■ Total - Protected ■ Total - Integrated

Outcome - Current & Proposed Land Category System Continued

Achieve a net increase in land excluded and restricted from coal development on eastern slopes (*)

CURRENT 1976 POLICY

CURRENT 1976 Coal Policy Land Category System		Category				TOTAL
Item		1	2	3	4	
Total Area Eastern Slopes	(sq km)	41,555	14,584	33,270	5,332	94,741
Percent of Total	(%)	44%	15%	35%	6%	100%
Area of Category Restricted (Parks, Water bodies)	(sq km)	41,555	530	732	235	43,052
Percent of Category Restricted	(%)	100%	4%	2%	4%	45%
Surface Area of Met Coal Bearing Groups	(sq km)	2,234	1,248	0	684	4,166
Surface Area of Met Coal Bearing Groups Currently Protected	(sq km)	2,234	108	0	72	2,414
Percent Coal Bearing Group Currently Protected	(%)	100%	9%	0%	11%	58%
Established Resources Met Coal	(Mt)	1,806	2,206	0	3,152	7,164
Established Exploration Targets Met Coal	(Mt)	0	2,193	0	510	2,703
Surface Area Potential for Met Coal Mining	(sq km)	0	1,140	0	612	1,752
Surface Area Potential for Met Coal Mining (Disturbance)	(sq km)	0	1,994	0	1,071	3,065
Percent Surface Area Potential for Met Coal Mining	(%)	0%	14%	0%	20%	3%

PROPOSED 2022

PROPOSED 2022 Coal Policy Land Category System		Category				TOTAL
Item		1	2	3	4	
Total Area Eastern Slopes	(sq km)	41,555	14,584	33,270	5,332	94,741
Percent of Total	(%)	44%	15%	35%	6%	100%
Proposed Increased Total Area of Category Restricted & Protected	(sq km)	41,555	12,590	33,270	4,261	91,676
Proposed Percent of Category Restricted	(%)	100%	86%	100%	80%	97%
Surface Area Open for Potential Development & Assessment	(sq km)	0	1,994	0	1,071	3,065
Percent of Category	(%)	0%	14%	0%	20%	3%

*Sources include: AER, 2016 Bedrock Geology of Alberta; 1999 AEUB Statistical Report 31 - Reserves of Coal, Province of Alberta; Lawrence, G.F, 1990-2005; Coal Resource Maps of the Eastern Slopes of the Rocky Mountains and Inner Foothills Regions of Alberta and British Columbia – a Digital Compendium of Coal Geology, Coal Exploration and Development within this Metallurgical Coal Belt: Lawrence Consulting and Resources Ltd.

Cabin Ridge Closing Thoughts

It is possible

- Globally, metallurgical coal is a scarce resource that will be needed for the foreseeable future to support increasing demand for steel
- Steel is critical for everyday life and transitioning to a green economy
- Alberta has a world-class metallurgical coal resource that is in demand and should not be stranded
- A modern coal policy presents opportunity to:
 - Respect and balance different values and interests
 - Protect the environment, including water, biodiversity, special species and sensitive areas
 - Increase protected lands from coal development under the coal categories
 - Ensure reclamation certainty
 - Advance reconciliation with Indigenous Peoples
 - Collaborate
 - Invest in Alberta and contribute to economic prosperity in communities and the province
- Cabin Ridge supports this consultation process and thanks the Committee for the opportunity to express our views



Thank you